

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-012273**Date Inspected:** 24-Feb-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 800**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1630**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site**CWI Name:** Tom Pasqualone**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Orthotropic Box Girders (OBG)**Summary of Items Observed:**

The Quality Assurance Inspector (QAI), Scott Croff, was present at the Self Anchored Span (SAS) job site to observe the scheduled fabrication and welding of components for the SFOBB project. The following observations were made:

1) OBG field splice fit-up

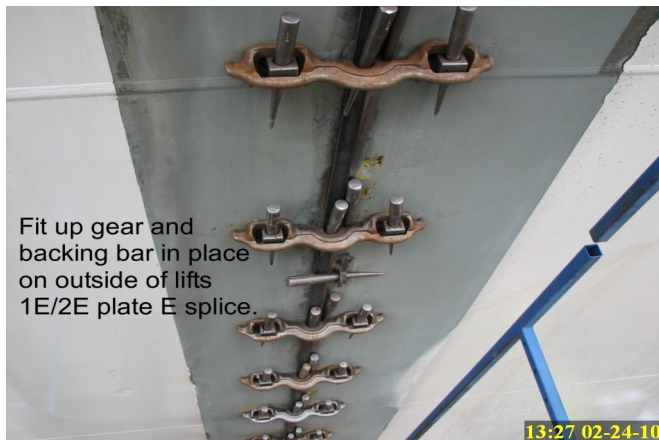
1) The QAI observed the installation and fillet welding of temporary fit up aids (fit up gear) on side plate E at OBG lifts 1E/2E field splice. The temporary fillet welding was performed by ABF welder Mitch Sittinger, ID 0315. The QAI observed the Quality Control (QC) Inspector Tom Pasqualone monitoring the welding of the fit up aids at this location. The QAI noted that shielded metal arc welding (SMAW) with 1/8" E7018 electrodes are being used and the QAI was informed that Welding Procedure Specification (WPS) ABF-WPS-D15-F1200A-1 is being used for the temporary fillet welds. The QAI made random observations of welding parameters and preheat temperature which were measured at 130 DC amps and a minimum temperature of 150°F. The QAI noted that the workmanship appeared to be generally conforming to the contract requirements. See the attached photos. The QAI noted that the outside (bottom) of side plate E has 17 pairs of attachments for the fit up gear. The QAI was informed that the backing bar will be fit in, and trimmed at the corner where plate D backing bar intersects. The QAI was informed that the backing bars will not be spliced together, as they will be removed from the weld. The QAI observed that there is a gap between the backing bars at this location and at the side plate C to plate D intersection as well. See the attached photo.

The QAI also made observations of the backing bars' fit-up on the side plates C and E and noted that there are gaps

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visible, the largest gap observed was measured at 3mm between the backing bar and Lift 2E on the side plate C. The QAI was informed that the fit up of the joints and backing bars will be verified and/or modified prior to the start of production welding. The QAI also observed ABF personnel installing induction heating pads under the field splice of bottom plate D. The QAI noted that the heaters are not in intimate contact with the base metals due to the temporary attachments used for fitting up the splice. The QAI was informed that these heaters will not be the primary heaters and will only be used to help stabilize the preheat temperature. See the attached photo. This work was in progress at the end of the QAIs shift.



Summary of Conversations:

The QAI relayed the observations of backing bar installation and OBG fit up / temporary welding to the QAIs Bill Levell and Rick Bettencourt. There were general discussions of the work schedule and the status of welding on OBG lifts 1E/2E D plate splice. There were no other notable observations or conversations during this shift.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mohammad Fatemi, (916)813-3677, who represents the Office of Structural Materials for your project.

Inspected By: Croff, Scott

Quality Assurance Inspector

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Reviewed By: Levell,Bill

QA Reviewer